Asian/Pacific American Heritage Month

Flossie Wong-Staal

Introduction: Flossie Wong-Staal is one of the world's foremost authorities in the field of virology, the study of viruses, and is one of America's pioneering researchers of AIDS (Acquired Immune Deficiency Syndrome). Along with her colleagues at the National Cancer Institute, Wong-Staal was the first researcher to clone, or make a copy of, the human immunodeficiency virus (HIV) — the virus that causes AIDS — which allowed them to decipher its structure. Since moving to the University of California at San Diego in 1990, Wong-Staal has continued her AIDS research, working specifically in gene therapy, one of the most technologically sophisticated areas in medical research. In 1990 she was listed by the Institute for Scientific Information as the top woman scientist of the past decade and the fourth-ranking scientist under age 45.

Growing up in Hong Kong: Wong-Staal was born Yee Ching Wong in mainland China in 1947. Her father was a businessman and her mother a homemaker. In 1952 the family fled the Communist mainland and settled in the British colony of Hong Kong, where Yee Ching was enrolled in a Catholic school and her name was changed. The nuns thought that she should have an English name, and her father, who spoke no English, picked Flossie from a newspaper account of Typhoon Flossie, which had hit Hong Kong the week before

As she excelled in school, Wong-Staal was encouraged to study science further. After graduating from an all-girls high school in Hong Kong in 1965, Wong-Staal immigrated to the United States to study at the University of California at Los Angeles (UCLA), where she chose to focus on molecular biology. She earned her bachelor's degree and then went on to graduate work as a research assistant in bacteriology. She attended the University of California at San Diego for postgraduate work in the same field. It was during this period that she married, adding Staal to her name. (She has since divorced.) In the early 1970s, having completed her schooling, Wong-Staal took a position with the National Cancer Institute in Bethesda, Maryland, where she worked in the field of retroviruses with the prominent researcher Robert Gallo, credited as the co-discoverer of HIV.

Her vision for a cure: Wong-Staal and her staff at UCSD, in collaboration with five other research institutions across the United States, are currently working on a scheme to stop HIV from reproducing itself in infected people. Perhaps the most promising area of her current research is in gene therapy. Wong-Staal is also working with several biotechnology companies to develop drugs that might short-circuit the virus's reproductive cycle. Despite obstacles in her pursuit of a vaccine to immunize healthy people against the baffling virus, Wong-Staal has made progress; recently she began working with a synthetic reproduction of HIV that could cause human cells to reject the actual HIV. She told *Discover,* "Our goal is to make a virus as similar to the real one as possible, but to make sure there's no risk of introducing its dangerous genes into an uninfected population." This is just one of the many areas being researched around the world in an all-out effort to stop the spread of this global epidemic and reduce the suffering of those already afflicted.